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July 07, 2019.

Dear Sir,

**Re: MICROBIOLOGICAL TEST OF SEEDS**

Hereby, please find results of 1 tomato seeds sample, brought to our laboratory on June 26, 2019.

Transportation: The sample was received in the laboratory without any means of protection from temperature changes.

The sample was tested for:

- Pseudomonas syringae* pv. *tomato* (Pt) - 1 replicate of 500 seeds
- Pseudomonas corrugata* (Pc) - 1 replicate of 500 seeds
- Erwinia carotovora* (Er) - 1 replicate of 500 seeds
- Xanthomonas campestris* pv. *vesicatoria* (Xv) - 1 replicate of 500 seeds
- Clavibacter michiganensis* sp. *michiganensis* (Cmm) - 1 replicate of 500 seeds
- Tobamoviruses (TMV, ToMV, ToMMV, ToBRFV) - 2 replicates of 250 seeds each, by the bioassay method.
- Pepino Mosaic Virus (PepMV) - 2 replicates of 250 seeds each, by the ELISA method.
- Potato Spindle Tuber Viroid (PSTVd) - 1 replicate of 500 seeds.
- Nepoviruses – 1 replicate of 250 seeds
- Fusarium oxysporum* – 200 seeds

The tests were performed according to:

S.O.P 50: "Testing seeds for viruses by the ELISA method".

**PepMV**: Prime, Lot: P81886/ P81915, Ex: 02/21

S.O.P 54: "Testing Tomato and Pepper seeds for Pt, Pc, Xv, Cmm, Er"

S.O.P 56: "Detection of infectious Tobamoviruses in tomato and pepper plants and seeds" according to: ISTA 7-028 (2019), ISHI-Veg (Sep 2019) "Detection of Infectious Tobamoviruses in Tomato seed" and "Detection of Infectious Tobamoviruses in Pepper seed".

S.O.P 80: "Detection of Viroid from the Pospiviroid group including Potato Spindle Tuber Viroid (PSTVd) in plants and seeds by RT-PCR or qPCR method".

S.O.P 83: "Detection of Fungi in seeds for: *Fusarium*, *Didymella*, *Phoma*, *Lasiodiplodia*, *Macrophomina*, *Colletotrichum*, *Alternaria*, *Stemphylium*, *Cladosporium*, *Phytophthora*, *Verticillium*, *Botrytis*, *Ascochyta*, *Bipolaris*, *Sclerotinia*".

S.O.P 103: "Detection of viruses in Solanaceae seeds".

**RESULTS:**

Lab No.	Sample	Pt	Pc	Er	Xv	Cmm
4027	Tomato seeds Mix T-627*	Negative	Negative	Negative	Negative	Negative

Lab No.	Sample	Tobamoviruses	PepMV	PSTVd	Nepoviruses	<i>Fusarium oxysporum</i>
4027	Tomato seeds Mix T-627*	Negative	Negative	Negative	Negative	Negative

**\*Mix T-627:**

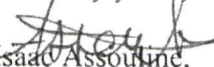
E15B.50747  
E15A.50883  
E15B.50858  
E15M.50983  
E15M.50989  
E15M.50990  
E15A.50969  
E15A.50993  
E15A.50970  
E15B.41778  
E15B-50546  
E51057

**Comments:**

1. ISRAC is not responsible for the testing results conducted by the laboratory and the laboratory's accreditation is not considered as an approval of ISRAC or different party related to the assessed.
2. This document must be referred to entirely and copying of any part of it to other documents is forbidden
3. The data in this certificate reflect results that are valid for analyzed samples only as received in the lab.

**End of certificate.**

Sincerely yours,



Isaac Assouline,

Head Microlab Laboratories (99) Ltd.